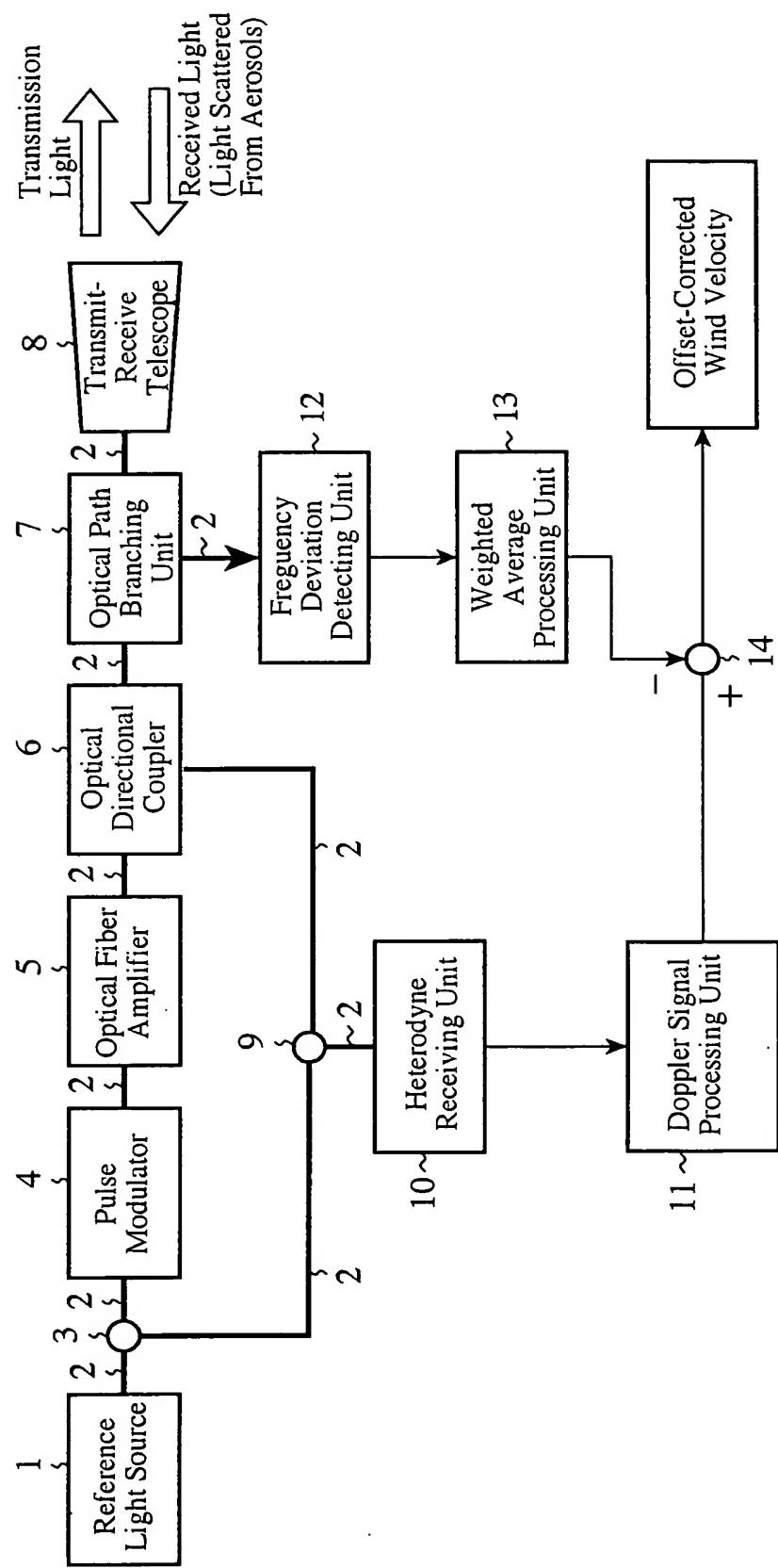


FIG.1



## FIG.2

Example of Velocity Offset  $\Delta V_{\text{offset}}$  Which Is Calculated Based  
On Both Frequency Deviation  $f_{\text{chirp}}$  of Pulsed Transmission  
Light of Wavelength  $\lambda = 1.5 \mu \text{m}$ , And Equation (2)

Object Distance Resolution [m]	Transmission Light Pulse Width [ $\mu \text{sec}$ ]	Transmission Light Frequency Deviation [MHz]	Offset Wind Velocity [m/s]
37.5	0.25	-1.01	0.76
75	0.5	-0.41	0.31
150	1.0	-0.20	0.15

## FIG.3

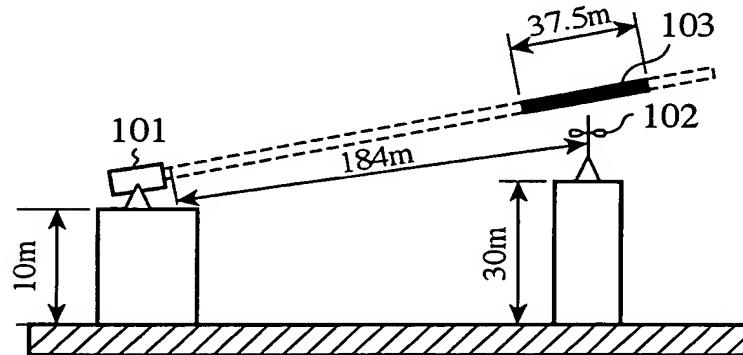
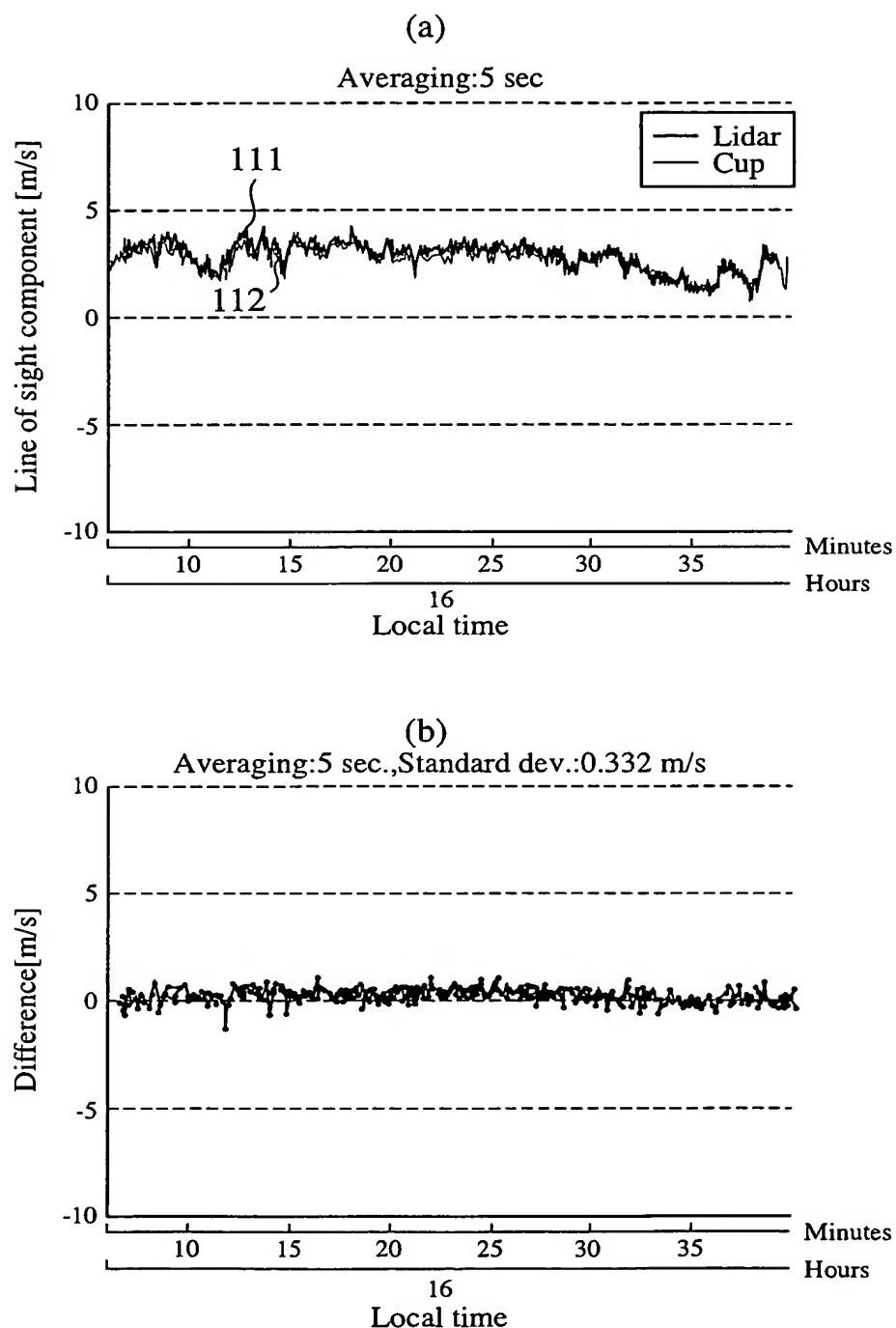


FIG.4



Result of Verification Experiment of Wind Velocity Offset Correction  
 (a) Time Series Data On Wind Velocities Measured By Both Measuring Instruments(398 5-Second Averaged Points)  
 (b)Difference Between Wind Velocities Measured By Both Measuring Instruments

FIG.5

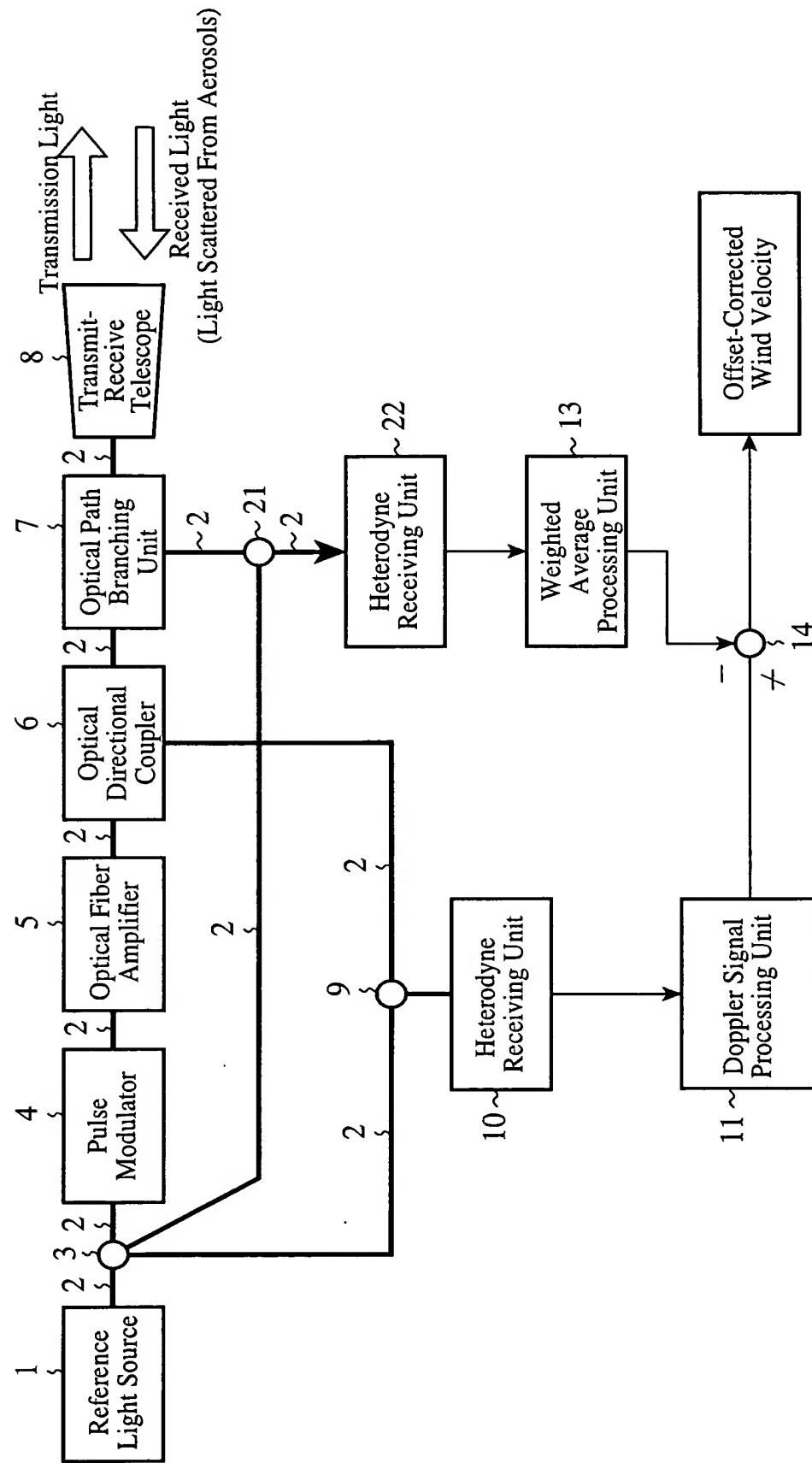


FIG.6

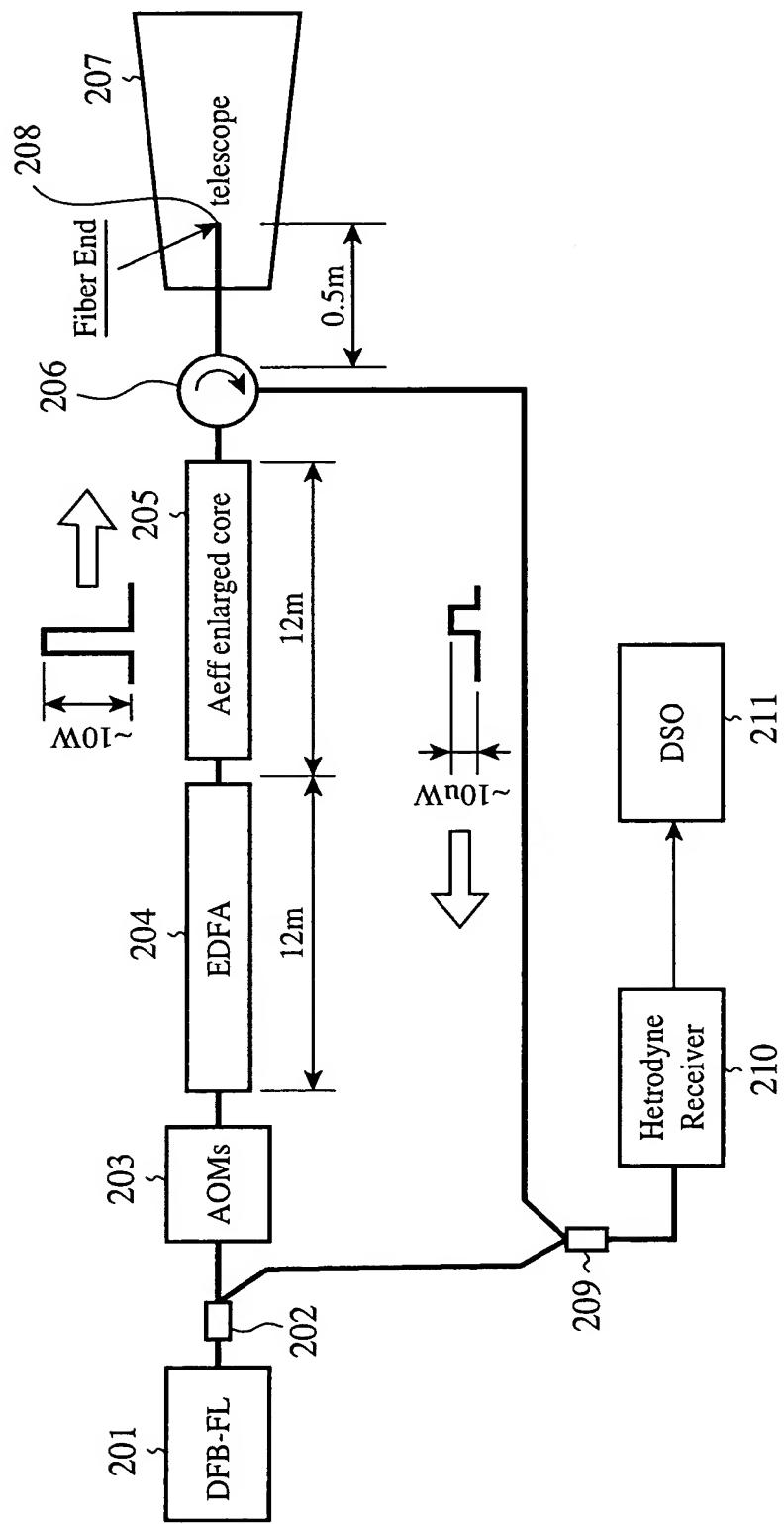
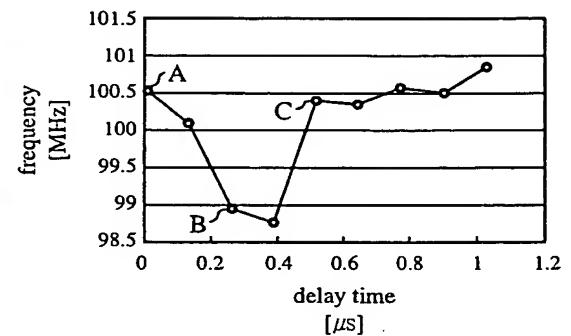
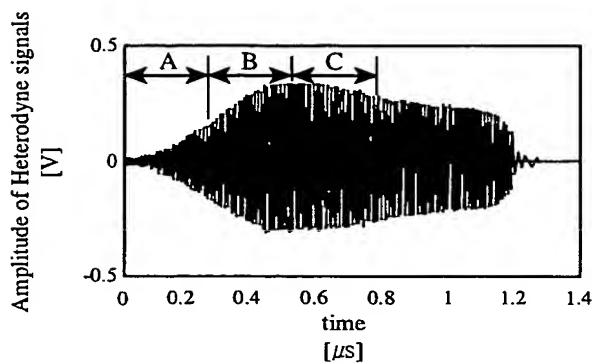
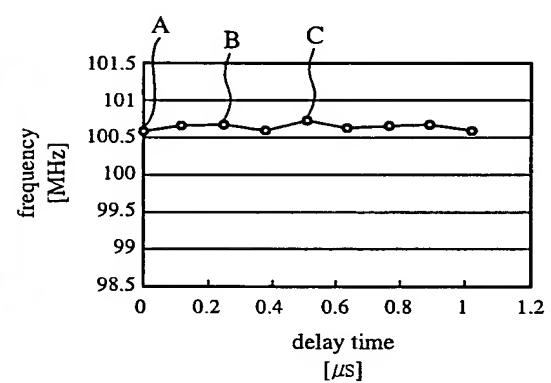
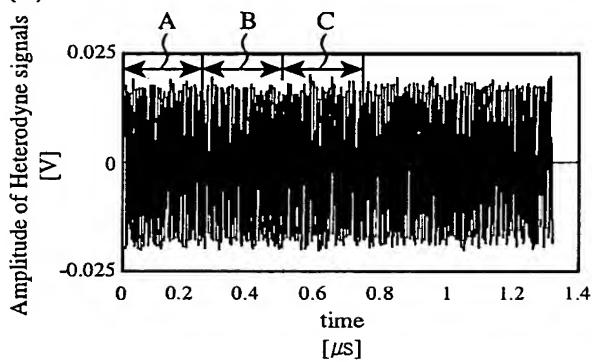


FIG.7

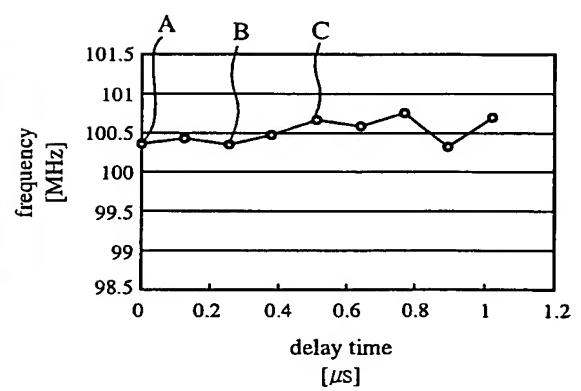
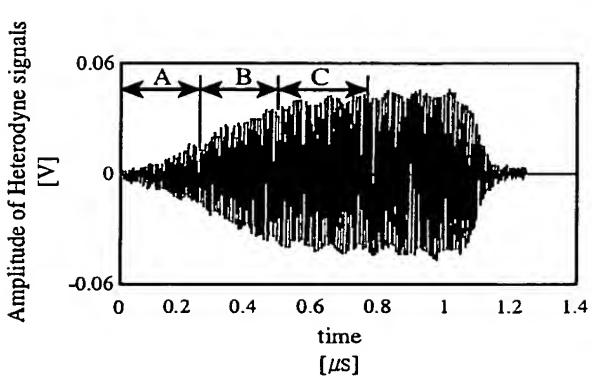
(a)



(b)



(c)



Time Series Data (Shown On Left-Hand Side) On Heterodyne-Detected Signal of Internally-Reflected Light, And Frequency-Analysis Result (Shown On Right-Hand Side)

(a) When Pulsed Transmission Light Is Output Using EDFA

(b) When CW (Continuous Wave) Transmission Light Is Output

(c) When Pulsed Light Output From AOM Is Properly Attenuated And Heterodyne-Detected

FIG.8

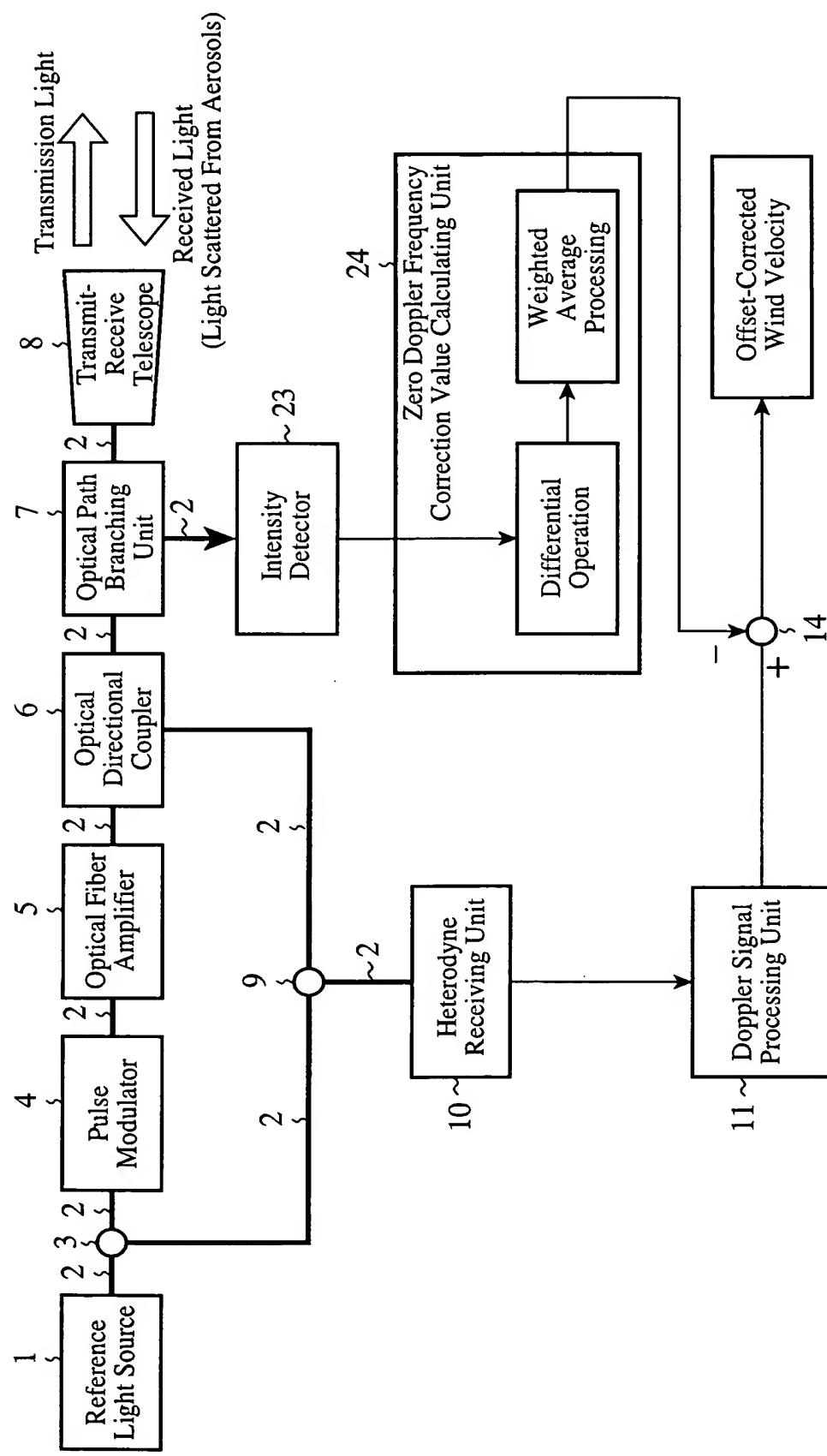


FIG.9

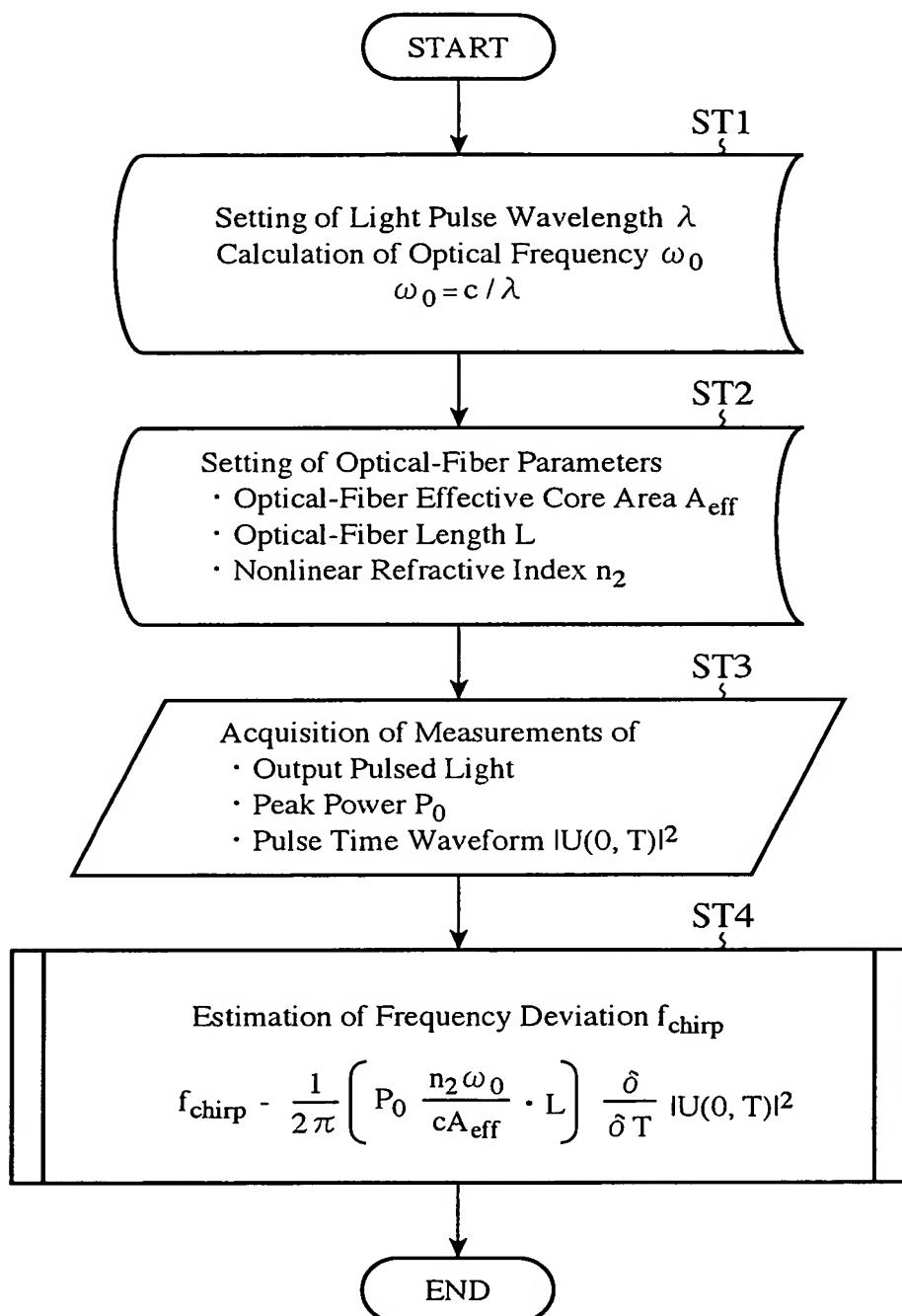


FIG.10

Output Pulse Intensity Waveform of Transmission Light

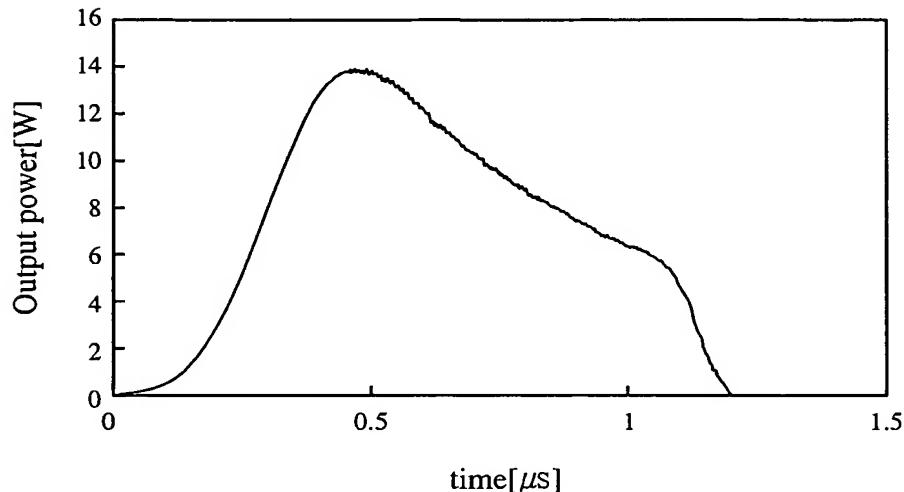


FIG.11

Computed Result of Transmission Light Frequency Deviation Which Is Based On Self-Phase Modulation

